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FILE 'HOME' ENTERED AT 20:10:55 ON 26 SEP 2007

=> fil medline biosis caplus scisearch embase wpids
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                                                           ENTRY    SESSION
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=> e larocca davi?/au
E1          11     LAROCCA D J/AU
E2           9     LAROCCA DARIA/AU
E3           0 --> LAROCCA DAVI?/AU
E4          56     LAROCCA DAVID/AU
E5           8     LAROCCA DAVID J/AU
E6           2     LAROCCA DAVID JAMES/AU
E7          50     LAROCCA E/AU
E8           6     LAROCCA E W/AU
E9           3     LAROCCA EDWARD W/AU
E10          6     LAROCCA F/AU
E11          3     LAROCCA F D/AU
E12          7     LAROCCA F E/AU

=> e4-e6
L1          66 ("LAROCCA DAVID"/AU OR "LAROCCA DAVID J"/AU OR "LAROCCA DAVID
               JAMES"/AU)

=> dup rem l1
PROCESSING COMPLETED FOR L1
L2          50 DUP REM L1 (16 DUPLICATES REMOVED)

=> phage and cell and (bind or bind? or bound) and (wash or wash?) and l2
L3           0 PHAGE AND CELL AND (BIND OR BIND? OR BOUND) AND (WASH OR WASH?)
               AND L2

=> phage and cell and l2
L4          22 PHAGE AND CELL AND L2

=> biopanning and l2
L5           0 BIOPANNING AND L2

=> l4 1-22
MISSING OPERATOR L4 1-22
The search profile that was entered contains terms or
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nested terms that are not separated by a logical operator.

=> t ti l4 1-22

L4 ANSWER 1 OF 22 MEDLINE on STN
TI Selection of internalizing ligand-display phage using rolling circle amplification for phage recovery.

L4 ANSWER 2 OF 22 MEDLINE on STN
TI Evolving phage vectors for cell targeted gene delivery.

L4 ANSWER 3 OF 22 MEDLINE on STN
TI Enhanced phagemid particle gene transfer in camptothecin-treated carcinoma cells.

L4 ANSWER 4 OF 22 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI Receptor-mediated gene delivery using bacteriophage vectors.

L4 ANSWER 5 OF 22 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI Receptor-mediated gene delivery using bacteriophage vectors.

L4 ANSWER 6 OF 22 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI Receptor-mediated gene transfer by phage-display vectors: Applications in functional genomics and gene therapy.

L4 ANSWER 7 OF 22 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI EGF-targeted phage gene transfer to human carcinoma cells is enhanced by camptothecin.

L4 ANSWER 8 OF 22 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI Receptor-mediated gene delivery using bacteriophage vectors.

L4 ANSWER 9 OF 22 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI Genetic selection of phage engineered for receptor-mediated gene transfer to mammalian cells.

L4 ANSWER 10 OF 22 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI Gene transfer to mammalian cells using genetically targeted filamentous bacteriophage.

L4 ANSWER 11 OF 22 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI Targeting bacteriophage to mammalian cell surface receptors for gene delivery.

L4 ANSWER 12 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
TI Display libraries for identifying ligands that bind selective populations of progenitor/stem cells

L4 ANSWER 13 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
TI Evolving phage vectors for cell targeted gene delivery - an update

L4 ANSWER 14 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
TI Compositions and methods for portal-specific gene delivery and treatment of infection

L4 ANSWER 15 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
TI Use of viral vectors carrying marker genes to analyze protein interactions and to identify ligand peptides

L4 ANSWER 16 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
TI Methods using genetic package (e.g. phage) display for selecting internalizing ligands (e.g. drugs) for gene delivery

L4 ANSWER 17 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
TI Characterization of protein interactions that facilitate internalization of a ligand-presenting virus by animal cells and their use in the development of gene delivery vectors

L4 ANSWER 18 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
TI Receptor-targeted gene delivery using multivalent phagemid particles

L4 ANSWER 19 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
TI Gene transfer using targeted filamentous bacteriophage

L4 ANSWER 20 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
TI LIVE (Ligand Identification via Expression) method using genetic package display for detecting ligand-receptor binding and ligand internalization

L4 ANSWER 21 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
TI Methods using phage display for selecting internalizing ligands for gene delivery

L4 ANSWER 22 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
TI Receptor-mediated gene delivery using bacteriophage vectors

=> d ibib abs l4 1-22

L4 ANSWER 1 OF 22 MEDLINE on STN
ACCESSION NUMBER: 2004390970 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15294095
TITLE: Selection of internalizing ligand-display phage using rolling circle amplification for phage recovery.
AUTHOR: Burg Michael; Ravey Edward P; Gonzales Michelle; Amburn Emelie; Faix Peggy Ho; Baird Andrew; Larocca David
CORPORATE SOURCE: Selective Genetics, Inc., San Diego, California 92121, USA.
CONTRACT NUMBER: 1 R44DK57985-03 (NIDDK)
SOURCE: DNA and cell biology, (2004 Jul) Vol. 23, No. 7, pp. 457-62.
Journal code: 9004522. ISSN: 1044-5498.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200408
ENTRY DATE: Entered STN: 6 Aug 2004
Last Updated on STN: 27 Aug 2004
Entered Medline: 26 Aug 2004

AB Selection of phage libraries against complex living targets such as whole cells or organs can yield valuable targeting ligands without prior knowledge of the targeted receptor. Our previous studies have shown that noninfective multivalent ligand display phagemids internalize into mammalian cells more efficiently than their monovalent counterparts suggesting that cell-based selection of internalizing ligands might be improved using multivalently displayed peptides, antibodies or cDNAs. However, alternative methods of phage recovery are needed to select phage from noninfective libraries. To this end, we reasoned that rolling circle amplification (RCA) of phage DNA could be used to recover noninfective phage. In feasibility studies, we obtained up to 1.5 million-fold enrichment of internalizing

EGF-targeted phage using RCA. When RCA was applied to a large random peptide library, eight distinct human prostate carcinoma cell-internalizing peptides were isolated within three selection rounds. These data establish RCA as an alternative to infection for phage recovery that can be used to identify peptides from noninfective phage display libraries or infective libraries under conditions where there is the potential for loss of phage infectivity.

L4 ANSWER 2 OF 22 MEDLINE on STN
ACCESSION NUMBER: 2002151655 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11883506
TITLE: Evolving phage vectors for cell targeted gene delivery.
AUTHOR: Larocca David; Burg Michael A; Jensen-Pergakes Kristen; Ravey Edward Prenn; Gonzalez Ana Maria; Baird Andrew
CORPORATE SOURCE: Selective Genetics, Inc, San Diego, CA 92121, USA.. laroccad@selectivegenetics.com
CONTRACT NUMBER: 1R43 CA80515 (NCI)
2R44DK/AR57985 (NIDDK)
SOURCE: Current pharmaceutical biotechnology, (2002 Mar) Vol. 3, No. 1, pp. 45-57. Ref: 38
Journal code: 100960530. ISSN: 1389-2010.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200209
ENTRY DATE: Entered STN: 11 Mar 2002
Last Updated on STN: 4 Sep 2002
Entered Medline: 3 Sep 2002

AB We adapted filamentous phage vectors for targeted gene delivery to mammalian cells by inserting a mammalian reporter gene expression cassette (GFP) into the vector backbone and fusing the pIII coat protein to a cell targeting ligand (i.e. FGF2, EGF). Like transfection with animal viral vectors, targeted phage gene delivery is concentration, time, and ligand dependent. Importantly, targeted phage particles are specific for the appropriate target cell surface receptor. Phage have distinct advantages over existing gene therapy vectors because they are simple, economical to produce at high titer, have no intrinsic tropism for mammalian cells, and are relatively simple to genetically modify and evolve. Initially transduction by targeted phage particles was low resulting in foreign gene expression in 1-2% of transfected cells. We increased transduction efficiency by modifying both the transfection protocol and vector design. For example, we stabilized the display of the targeting ligand to create multivalent phagemid-based vectors with transduction efficiencies of up to 45% in certain cell lines when combined with genotoxic treatment. Taken together, these studies establish that the efficiency of phage-mediated gene transfer can be significantly improved through genetic modification. We are currently evolving phage vectors with enhanced cell targeting, increased stability, reduced immunogenicity and other properties suitable for gene therapy.

L4 ANSWER 3 OF 22 MEDLINE on STN
ACCESSION NUMBER: 2002125790 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11861367
TITLE: Enhanced phagemid particle gene transfer in camptothecin-treated carcinoma cells.

AUTHOR: Burg Michael A; Jensen-Pergakes Kristen; Gonzalez Ana Maria; Ravey Prenn; Baird Andrew; Larocca David
CORPORATE SOURCE: Selective Genetics, Inc., San Diego, California 92121, USA.
CONTRACT NUMBER: 1R43 CA80515 (NCI)
SOURCE: Cancer research, (2002 Feb 15) Vol. 62, No. 4, pp. 977-81. Journal code: 2984705R. ISSN: 0008-5472.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200203
ENTRY DATE: Entered STN: 26 Feb 2002
Last Updated on STN: 3 Apr 2002
Entered Medline: 27 Mar 2002

AB Engineered phage-based vectors are an attractive alternative strategy for gene delivery because they possess no natural mammalian cell tropism and can be genetically modified for specific applications. Genotoxic treatments that increase the transduction efficiency of single-stranded adeno-associated virus were tested on cells transfected by single-stranded phage. Indeed, green fluorescent protein transgene expression by epidermal growth factor-targeted phagemid particles increased with heat shock, UV irradiation, and camptothecin (CPT) treatment. CPT resulted in transduction efficiencies of 30-45% in certain human carcinoma cell lines and reduced the minimal dose needed to detect green fluorescent protein-expressing cells to as low as 1-10 particles/cell. Targeted phage transduction was effective in many tumor cell lines and in prostate tumor xenografts with CPT treatment. Taken together, these data suggest the feasibility of using phage-based vectors for therapeutic gene delivery to cancer cells.

L4 ANSWER 4 OF 22 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2007:78381 BIOSIS
DOCUMENT NUMBER: PREV200700078809
TITLE: Receptor-mediated gene delivery using bacteriophage vectors.
AUTHOR(S): Anonymous; Larocca, David [Inventor]; Baird, Andrew [Inventor]; Johnson, Wendy [Inventor]
CORPORATE SOURCE: Encinitas, CA USA
ASSIGNEE: Selective Genetics Inc
PATENT INFORMATION: US 07148202 20061212
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (DEC 12 2006) CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Jan 2007
Last Updated on STN: 24 Jan 2007

AB Filamentous phage particles displaying a ligand on their surface are used to deliver a therapeutic gene to a cell. The ligand is a fusion protein with a phage capsid protein, covalently conjugated to phage particles, or complexed with modified phage particles.

L4 ANSWER 5 OF 22 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:569424 BIOSIS
DOCUMENT NUMBER: PREV200200569424
TITLE: Receptor-mediated gene delivery using bacteriophage vectors.
AUTHOR(S): Larocca, David [Inventor]; Baird, Andrew [Inventor]; Johnson, Wendy [Inventor]
CORPORATE SOURCE: ASSIGNEE: Selective Genetics, Inc.

PATENT INFORMATION: US 6448083 20020910
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Sep. 10, 2002) Vol. 1262, No. 2. http://www.uspto.gov/web/menu/patdata.html. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 7 Nov 2002
Last Updated on STN: 7 Nov 2002

AB Filamentous phage particles displaying a ligand on their surface are used to deliver a therapeutic gene to a cell. The ligand is a fusion protein with a phage capsid protein, covalently conjugated to phage particles, or complexed with modified phage particles.

L4 ANSWER 6 OF 22 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:40525 BIOSIS
DOCUMENT NUMBER: PREV200200040525
TITLE: Receptor-mediated gene transfer by phage-display vectors: Applications in functional genomics and gene therapy.
AUTHOR(S): Larocca, david [Reprint author]; Baird, Andrew [Reprint author]
CORPORATE SOURCE: Selective Genetics, 11035 Roselle Street, San Diego, CA, 92121, USA
laroocad@selectivegenetics.com
SOURCE: Drug Discovery Today, (1st August, 2001) Vol. 6, No. 15, pp. 793-801. print.
ISSN: 1359-6446.
DOCUMENT TYPE: Article
General Review; (Literature Review)
LANGUAGE: English
ENTRY DATE: Entered STN: 2 Jan 2002
Last Updated on STN: 25 Feb 2002

AB Recent studies have demonstrated targeted gene-delivery to mammalian cells using modified phage-display vectors. Specificity is determined by the choice of the genetically displayed targeting ligand. Without targeting, phage particles have virtually no tropism for mammalian cells. Thus, novel ligands can be selected from phage libraries by their ability to deliver a reporter gene to targeted cells. Together with advances in cDNA display technologies, these findings offer new opportunities for the use of phage-display technology in functional genomics. In addition, targeted phage particles have potential as alternative gene therapy vectors that can be further improved using directed evolution.

L4 ANSWER 7 OF 22 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2001:172651 BIOSIS
DOCUMENT NUMBER: PREV200100172651
TITLE: EGF-targeted phage gene transfer to human carcinoma cells is enhanced by camptothecin.
AUTHOR(S): Burg, Michael A. [Reprint author]; Jensen-Pergakes, Kristen [Reprint author]; Baird, Andrew [Reprint author]; Larocca, David [Reprint author]
CORPORATE SOURCE: Selective Genetics, Inc., 11035 Roselle St., San Diego, CA, 92121, USA
SOURCE: Cancer Gene Therapy, (December, 2000) Vol. 7, No. 12, pp. S12. print.
Meeting Info.: Ninth International Conference on Gene Therapy of Cancer. San Diego, California, USA. December 07-09, 2000.
ISSN: 0929-1903.
DOCUMENT TYPE: Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 4 Apr 2001
Last Updated on STN: 18 Feb 2002

L4 ANSWER 8 OF 22 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2000:472477 BIOSIS
DOCUMENT NUMBER: PREV200000472477
TITLE: Receptor-mediated gene delivery using bacteriophage vectors.
AUTHOR(S): Larocca, David [Inventor, Reprint author]; Baird, Andrew [Inventor]; Johnson, Wendy [Inventor]
CORPORATE SOURCE: Encinitas, CA, USA
ASSIGNEE: Selective Genetics, Inc., San Diego, CA, USA
PATENT INFORMATION: US 6054312 20000425
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Apr. 25, 2000) Vol. 1233, No. 4. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 1 Nov 2000
Last Updated on STN: 10 Jan 2002
AB Filamentous phage particles displaying a ligand on their surface are used to deliver a therapeutic gene to a cell. The ligand is a fusion protein with a phage capsid protein, covalently conjugated to phage particles, or complexed with modified phage particles.

L4 ANSWER 9 OF 22 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2000:27263 BIOSIS
DOCUMENT NUMBER: PREV200000027263
TITLE: Genetic selection of phage engineered for receptor-mediated gene transfer to mammalian cells.
AUTHOR(S): Kassner, Paul D. [Reprint author]; Burg, Michael A. [Reprint author]; Baird, Andrew [Reprint author]; Larocca, David [Reprint author]
CORPORATE SOURCE: Selective Genetics, Inc., 11035 Roselle Street, San Diego, CA, 92121, USA
SOURCE: Biochemical and Biophysical Research Communications, (Nov. 2, 1999) Vol. 264, No. 3, pp. 921-928. print.
CODEN: BBRCA9. ISSN: 0006-291X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 13 Jan 2000
Last Updated on STN: 31 Dec 2001
AB Although phage display is a powerful way of selecting ligands against purified target proteins, it is less effective for selecting functional ligands for complex targets like living cells. Accordingly, phage display has had limited utility in the development of targeting agents for gene therapy vectors. By adapting a filamentous bacteriophage for gene delivery to mammalian cells, however, we show here that it is possible to screen phage libraries for functional ligands capable of delivering DNA to cells. For example, when targeted with epidermal growth factor (EGF), M13 bacteriophage were capable of delivering a green fluorescent protein (GFP) gene to EGF receptor bearing cells in a ligand-, time-, and phage concentration-dependent manner. The EGF-targeted phage transduced COS-1 cells in a highly specific manner as demonstrated by competition with excess free EGF or alternatively with anti-EGF receptor antibodies. We further demonstrate that EGF-phage can be selected, by their abilityto transduce EGF receptor bearing cells from libraries of peptide display phage. When phage were incubated with COS-1 cells, EGF ligand-encoding sequences were recovered by PCR from FACsorted,

GFP-positive cells and the EGF-displaying phage were enriched 1 million-fold by four rounds of selection. These data suggest the feasibility of applying molecular evolution to phage gene delivery to select novel cell-specific DNA-targeting ligands. The same approach could be used to select genetically altered phage that are specifically designed and evolved as gene therapy vectors.

L4 ANSWER 10 OF 22 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 1999:215863 BIOSIS
DOCUMENT NUMBER: PREV199900215863
TITLE: Gene transfer to mammalian cells using genetically targeted filamentous bacteriophage.
AUTHOR(S): Larocca, david [Reprint author]; Kassner, Paul D.; Witte, Alison; Ladner, Robert Charles; Pierce, Glenn F.; Baird, Andrew
CORPORATE SOURCE: Selective Genetics Inc., 11035 Roselle St., San Diego, CA, 92121, USA
SOURCE: FASEB Journal, (April, 1999) Vol. 13, No. 6, pp. 727-734. print.
CODEN: FAJOEC. ISSN: 0892-6638.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 26 May 1999
Last Updated on STN: 26 May 1999

AB We have genetically modified filamentous bacteriophage to deliver genes to mammalian cells. In previous studies we showed that noncovalently attached fibroblast growth factor (FGF2) can target bacteriophage to COS-1 cells, resulting in receptor-mediated transduction with a reporter gene. Thus, bacteriophage, which normally lack tropism for mammalian cells, can be adapted for mammalian cell gene transfer. To determine the potential of using phage-mediated gene transfer as a novel display phage screening strategy, we transfected COS-1 cells with phage that were engineered to display FGF2 on their surface coat as a fusion to the minor coat protein, pIII. Immunoblot and ELISA analysis confirmed the presence of FGF2 on the phage coat. Significant transduction was obtained in COS-1 cells with the targeted FGF2-phage compared with the nontargeted parent phage. Specificity was demonstrated by successful inhibition of transduction in the presence of excess free FGF2. Having demonstrated mammalian cell transduction by phage displaying a known gene targeting ligand, it is now feasible to apply phage-mediated transduction as a screen for discovering novel ligands.

L4 ANSWER 11 OF 22 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 1999:8395 BIOSIS
DOCUMENT NUMBER: PREV199900008395
TITLE: Targeting bacteriophage to mammalian cell surface receptors for gene delivery.
AUTHOR(S): Larocca, David [Reprint author]; Witte, Alison; Johnson, Wendy; Pierce, Glenn F.; Baird, Andrew
CORPORATE SOURCE: Selective Genetics, 11035 Roselle St., San Diego, CA 92024, USA
SOURCE: Human Gene Therapy, (Nov. 1, 1998) Vol. 9, No. 16, pp. 2393-2399. print.
ISSN: 1043-0342.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 11 Jan 1999
Last Updated on STN: 11 Jan 1999

AB Filamentous bacteriophages represent one of nature's most elegant ways of

packaging and delivering DNA. In an effort to develop novel methods for ligand discovery via phage gene delivery, we conferred mammalian cell tropism to filamentous bacteriophages by attaching basic fibroblast growth factor (FGF2), transferrin, or epidermal growth factor (EGF) to their coat proteins and measuring CMV promoter-driven reporter gene expression in target cells. In this system, FGF2 was a more effective targeting agent than transferrin or EGF. The detection of green fluorescent protein (GFP) or beta-galactosidase (beta-Gal) activity in cells required FGF2 targeting and was phage concentration dependent. Specificity of the targeting for high-affinity FGF receptors was demonstrated by competing the targeted phage with FGF2, by the failure of FGF2-targeted bacteriophage to transduce high-affinity FGF receptor-negative cells, and by their ability to transduce these same cells when stably transfected with FGFR1, a high-affinity FGF receptor. Long-term transgene expression was established by selecting colonies for G418 resistance, suggesting that with the appropriate targeted tropism, filamentous bacteriophage can serve as a vehicle for targeted gene delivery to mammalian cells.

L4 ANSWER 12 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1285841 CAPLUS
DOCUMENT NUMBER: 146:41530
TITLE: Display libraries for identifying ligands that bind selective populations of progenitor/stem cells
INVENTOR(S): West, Michael D.; Chapman, Karen B.; Larocca, David
PATENT ASSIGNEE(S): Advanced Cell Technology, Inc., USA
SOURCE: PCT Int. Appl., 89pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006130504	A2	20061207	WO 2006-US20552	20060526

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2005-685758P P 20050527

AB Display libraries and methods are provided for the identification of novel ligands to pluripotent stem cells such as human embryonic stem cells, human embryo-derived cells, and cells differentiated from such progenitor cells. The ligands are useful in identifying differentiation conditions, purifying cells, and for eliminating such cells from mixts. of varied cell types. For example, gene trap-based selection can be used to identify ligands that bind differentiation antigens that are expressed at various stages of differentiation between a pluripotent stem cell and a fully differentiated cell. Ligands that bind the differentiation antigens are selected from large libraries of ligands displayed on filamentous phage particles by means of reiterative cycles of contacting the cells with the library, removal of unbound phage and recovery of binding page. Bacteriophages, bacterial

cells, and bacterial spores may be used as display packages. Peptide phage display libraries are used to identify peptides that promote embryonic stem cell differentiation to β-islets and ligands that bind progenitors of cardiomyocytes.

L4 ANSWER 13 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1097862 CAPLUS
DOCUMENT NUMBER: 144:141569
TITLE: Evolving phage vectors for cell targeted gene delivery - an update
AUTHOR(S): Larocca, David; Burg, Michael A.; Baird, Andrew
CORPORATE SOURCE: Selective Genetics, Inc., San Diego, CA, 92121, USA
SOURCE: Medicinal Chemistry Reviews--Online (2005), 2(2), 111-114
CODEN: MCREC9; ISSN: 1567-2034
URL: http://www.ingentaconnect.com/content/ben/mcro/2005/00000002/00000002
PUBLISHER: Bentham Science Publishers Ltd.
DOCUMENT TYPE: Journal; General Review; (online computer file)
LANGUAGE: English
AB A review. Bacteriophage vectors are an attractive alternative to synthetic and animal viral gene delivery vectors. We have demonstrated that ligand targeted bacteriophage particles can be used to deliver a functional transgene to mammalian cells that bear the appropriate receptors. Because transduction of mammalian cells by untargeted phage is negligible, the specificity of phage-mediated gene delivery can be determined by the choice of targeting ligand that is displayed on the phage surface. Thus, phage display vectors can potentially be targeted genetically for gene delivery to specific cells in the body with little or no delivery to non-targeted cells. Moreover, since bacteriophage have not evolved to replicate in mammalian cells they are not likely to have toxicity problems associated with many animal viral vectors. Although the efficiency of phage -mediated gene delivery has been low compared to animal viral vectors, studies demonstrating increased gene transfer using agents that stimulate DNA repair indicate the potential for improving phage-mediated gene delivery. Indeed, the same principles of phage display that have been applied extensively to the directed evolution of binding ligands can now be applied to the adaptation of the phage particles, themselves for safe and effective therapeutic gene delivery.
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 14 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:836756 CAPLUS
DOCUMENT NUMBER: 139:328324
TITLE: Compositions and methods for portal-specific gene delivery and treatment of infection
INVENTOR(S): Abbott, Robert; Larocca, David; Baird, Andrew
PATENT ASSIGNEE(S): Selective Genetics, Inc., USA
SOURCE: PCT Int. Appl., 82 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003086276	A2	20031023	WO 2003-US10081	20030401
WO 2003086276	A3	20050428		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003222171	A1	20031027	AU 2003-222171	20030401
PRIORITY APPLN. INFO.:			US 2002-370360P	P 20020405
			WO 2003-US10081	W 20030401

AB The invention provides platform technol. for the treatment of intracellular infections. Compns. and methods of the invention include non-target specific vectors that target infectable cells via linked ligands that bind and internalize through cell surface receptors/moieties associated with infection. The vectors comprise exogenous nucleic acid sequences that are expressed upon internalization into a target cell. Vector associated ligands and nucleic acid mols. may be altered to target different infectious agents. In addition, the invention provides methods of identifying epitopes and ligands capable of directing internalization of a vector and capable of blocking viral entry.

L4 ANSWER 15 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:	2003:609938 CAPLUS
DOCUMENT NUMBER:	139:160783
TITLE:	Use of viral vectors carrying marker genes to analyze protein interactions and to identify ligand peptides
INVENTOR(S):	Larocca, David; Kassner, Paul; Baird, Andrew; Burg, Michael Alan
PATENT ASSIGNEE(S):	Selective Genetics, Inc., USA
SOURCE:	U.S. Pat. Appl. Publ., 71 pp., Cont.-in-part of U.S. Pat. Appl. 2002 68,272. CODEN: USXXCO
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	6
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003148263	A1	20030807	US 2002-151204	20020517
US 6472146	B1	20021029	US 1998-195379	19981117
US 6589730	B1	20030708	US 1998-193445	19981117
US 6451527	B1	20020917	US 1999-258689	19990226
WO 2000029555	A1	20000525	WO 1999-US25361	19991029

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2002068272	A1	20020606	US 2001-866073	20010524
US 6723512	B2	20040420		
PRIORITY APPLN. INFO.:			US 1997-57067P	P 19970829
			US 1998-193445	A2 19981117
			US 1998-195379	A2 19981117
			US 1999-258689	A2 19990226
			WO 1999-US25361	A2 19991029
			US 2001-866073	A2 20010524

US 1998-141631 B1 19980828

AB A genetic package display system for use in anal. of protein-protein interactions that uses protein interactions to guide transduction of a target cell with a viral vector is described. In particular, the system can be used to identify peptides that direct efficient cell surface binding or uptake. Viral vectors that do not normally target a cell type presenting a foreign peptide on their surface, e.g. a phage display library, and carrying a selectable or screenable marker, such as a reporter gene, are incubated with a target cell, or a variety of cells and tissue types and cells are screened for successful transduction. Also provided are methods for evolving a ligand displaying package to facilitate gene delivery or delivery of any desired agent (e.g., pharmaceutical, polypeptide, peptide, etc.) into a cell and/or targeting cellular compartments such as the nucleus, endosome, chloroplast, mitochondria, etc.

L4 ANSWER 16 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:711314 CAPLUS
DOCUMENT NUMBER: 137:227660
TITLE: Methods using genetic package (e.g. phage) display for selecting internalizing ligands (e.g. drugs) for gene delivery
INVENTOR(S): Larocca, David; Baird, Andrew; Kassner, Paul
PATENT ASSIGNEE(S): Selective Genetics, Inc., USA
SOURCE: U.S., 33 pp., Cont.-in-part of U.S. Ser. No. 193,445.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6451527	B1	20020917	US 1999-258689	19990226
US 6472146	B1	20021029	US 1998-195379	19981117
US 6589730	B1	20030708	US 1998-193445	19981117
CA 2352463	A1	20000525	CA 1999-2352463	19991029
WO 2000029555	A1	20000525	WO 1999-US25361	19991029
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 200013299	A	20000605	AU 2000-13299	19991029
EP 1133553	A1	20010919	EP 1999-956763	19991029
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 2002068272	A1	20020606	US 2001-866073	20010524
US 6723512	B2	20040420		
US 2003148263	A1	20030807	US 2002-151204	20020517

PRIORITY APPLN. INFO.:

US 1997-57067P	P	19970829
US 1998-141631	B2	19980828
US 1998-193445	A2	19981117
US 1998-195379	A2	19981117
US 1999-258689	A	19990226
WO 1999-US25361	W	19991029
US 2001-866073	A2	20010524

AB This invention relates generally to genetic package display (e.g., phage display), and in particular, to selection of ligands that bind to a cell surface receptor and internalize. A genetic

package display system is presented for selecting internalizing ligands for gene delivery. The genetic package carries a reporter, selectable marker, or a specifically detectable nucleic acid sequence and presents a ligand on its surface. A library of potential ligands may be screened for the ability to successfully transduce target cells. Within one aspect of the present invention, a method of selecting internalizing ligands displayed on a genetic package is presented, comprising: (a) contacting a ligand displaying genetic package(s) with a cell(s), wherein the package carries a gene encoding a detectable product which is expressed upon internalization of the package; and (b) detecting product expressed by the cell(s); thereby selecting internalizing ligands displayed on a genetic package. In one embodiment of the present invention, a library of antibodies, cDNAs, or genes encoding random peptides is cloned into a coat protein (e.g., gene III protein of filamentous phage) of a bacteriophage. The phage genome also contains an "expression cassette" encoding a transgene placed downstream from a cell promoter that is active in the cells to be infected. The transgene is generally a selectable gene product and/or a detectable marker. The cells may be isolated on the basis of transgene expression. The gene(s) that are fused with the coat protein and that promoted cell binding and internalization are recovered from the selected cells by a suitable method. The therapeutic gene product is selected from the group consisting of protein, ribozyme, and antisense oligonucleotide, and in other embodiments the therapeutic gene product is a cytotoxic agent (e.g., ribosome inactivating protein), or is an antibody that binds to HER2/neu. The construction of the phage display vector containing FGF2 was demonstrated as well as the transduction of mammalian cells by FGF2-ligand display phage.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:429460 CAPLUS

DOCUMENT NUMBER: 137:1479

TITLE: Characterization of protein interactions that facilitate internalization of a ligand-presenting virus by animal cells and their use in the development of gene delivery vectors

INVENTOR(S): Larocca, David; Kassner, Paul; Baird, Andrew

PATENT ASSIGNEE(S): Selective Genetics Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 47 pp., Cont.-in-part of Appl. No. PCT/US99/25361.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002068272	A1	20020606	US 2001-866073	20010524
US 6723512	B2	20040420		
US 6589730	B1	20030708	US 1998-193445	19981117
US 6451527	B1	20020917	US 1999-258689	19990226
WO 2000029555	A1	20000525	WO 1999-US25361	19991029

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2453579 A1 20021128 CA 2002-2453579 20020517
WO 2002094995 A2 20021128 WO 2002-US16001 20020517
WO 2002094995 A3 20030821
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
AU 2002257302 A1 20021203 AU 2002-257302 20020517
US 2003148263 A1 20030807 US 2002-151204 20020517
EP 1402074 A2 20040331 EP 2002-726900 20020517
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRIORITY APPLN. INFO.: US 1997-57067P P 19970829
US 1998-141631 A2 19980828
US 1998-193445 A2 19981117
US 1999-258689 A 19990226
WO 1999-US25361 A2 19991029
US 1998-195379 A2 19981117
US 2001-866073 A 20010524
WO 2002-US16001 W 20020517

AB A genetic package display system and methodol. for probing protein-protein interactions that lead to cell transduction, selecting and/or identifying internalizing ligands, target cells and tissues which internalize known or putative ligands, and cell transduction facilitating peptides is provided. A ligand displaying genetic package, such as an animal virus or a bacteriophage, that carries a selectable marker (e.g., reporter, selection, etc.) and presents a ligand on its surface is utilized to identify internalizing ligands, transduction facilitating peptides, and/or a variety of cells and tissue types for the ability to be successfully transduced by the ligand displaying genetic package. Also provided are methods for evolving a ligand displaying package to facilitate gene delivery or delivery of any desired agent (e.g., pharmaceutical, polypeptide, peptide, etc.) into a cell and/or targeting cellular compartments such as the nucleus, endosome, chloroplast, mitochondria, etc. Construction of bacteriophage m13 display vectors to identify cells carrying FGF2 receptors is demonstrated.
REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 18 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:196108 CAPLUS
DOCUMENT NUMBER: 137:74146
TITLE: Receptor-targeted gene delivery using multivalent phagemid particles
AUTHOR(S): Larocca, David; Jensen-Pergakes, Kristen; Burg, Michael A.; Baird, Andrew
CORPORATE SOURCE: Selective Genetics, Inc., San Diego, CA, 92121, USA
SOURCE: Molecular Therapy (2001), 3(4), 476-484
CODEN: MTOHCK; ISSN: 1525-0016
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Although growth factor- and antibody-targeted filamentous phage have recently been demonstrated to transduce mammalian cells, there is a significant need to increase transduction efficiency so as to improve the usefulness of targeted phage vectors for gene therapy and ligand discovery. Here, we describe the use of multivalent phagemid vectors that

are specifically designed for ligand-targeted mammalian cell transduction. This phagemid system has certain advantages over phage vectors, such as larger insert size and vector stability, and it retains the multivalent display necessary for efficient cell binding and internalization. Immunoblotting revealed that the most efficient multivalent display (exceeding that of a phage vector) was achieved in the phagemid system when epidermal growth factor (EGF) was fused to the C-terminal domain of the pIII coat protein. We compared phagemid particles displaying EGF at high or low valence by rescuing the vector with R408d3 (pIII deleted) or wild-type R408 helper phage, resp. More efficient display of EGF correlated with increased internalization, vector potency, and transduction efficiency (.apprx.9%). The findings described here support our original hypothesis that phage-based vectors can be modified for more efficient gene transfer and suggest that directed evolution may be applied to increase their potential even further. (c) 2001 Academic Press.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 19 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:921115 CAPLUS
DOCUMENT NUMBER: 137:89054
TITLE: Gene transfer using targeted filamentous bacteriophage
AUTHOR(S): Larocca, David; Jensen-Pergakes, Kristen; Burg, Michael A.; Baird, Andrew
CORPORATE SOURCE: USA
SOURCE: Methods in Molecular Biology (Totowa, NJ, United States) (2002), 185(Embryonic Stem Cells), 393-401
CODEN: MMBIED; ISSN: 1064-3745
PUBLISHER: Humana Press Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Phage vectors are simple and convenient to produce in bacteria, can be specifically targeted to cells, and have the potential to be evolved genetically for specific applications. In addition, filamentous phage have an inherent capacity to package large DNA inserts, because they are not limited in size by a preformed capsid, but instead form their protein coat as they are extruded from bacteria. Protocols for preparation of targeted phage vectors are given in detail, as are methods of transfection of mammalian cells.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 20 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:351645 CAPLUS
DOCUMENT NUMBER: 133:13365
TITLE: LIVE (Ligand Identification via Expression) method using genetic package display for detecting ligand-receptor binding and ligand internalization
INVENTOR(S): Larocca, David; Baird, Andrew; Kassner, Paul
PATENT ASSIGNEE(S): Selective Genetics, Inc., USA
SOURCE: PCT Int. Appl., 112 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000029555	A1	20000525	WO 1999-US25361	19991029

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,

IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6472146	B1	20021029	US 1998-195379	19981117
US 6589730	B1	20030708	US 1998-193445	19981117
US 6451527	B1	20020917	US 1999-258689	19990226
CA 2352463	A1	20000525	CA 1999-2352463	19991029
AU 200013299	A	20000605	AU 2000-13299	19991029
EP 1133553	A1	20010919	EP 1999-956763	19991029

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO

US 2002068272	A1	20020606	US 2001-866073	20010524
US 6723512	B2	20040420		
US 2003148263	A1	20030807	US 2002-151204	20020517

PRIORITY APPLN. INFO.:

US 1998-193445	A	19981117
US 1998-195379	A	19981117
US 1999-258689	A	19990226
US 1997-57067P	P	19970829
US 1998-141631	B1	19980828
WO 1999-US25361	W	19991029
US 2001-866073	A2	20010524

AB A genetic package display system and methodol. for probing protein-protein interactions that lead to cell transduction, and for selecting and/or identifying internalizing ligands, target cells and tissues which internalize known or putative ligands, and cell transduction-facilitating peptides is provided. A ligand-displaying genetic package that carries a selectable marker (e.g., reporter, selection, etc.) and presents a ligand on its surface is utilized to identify internalizing ligands, transduction facilitating peptides, and/or a variety of cells and tissue types for the ability to be successfully transduced by the ligand displaying genetic package. Thus, M13 vectors expressing FGF2 fused to pIII as well as an EGFP gene fused to a CMV promoter and bovine growth hormone transcriptional terminator and polyadenylation signal was prepared Recombinant M13 phage displaying the FGF2-pIII protein were added to COS cell cultures. Binding and internalization of the fusion protein was demonstrated by immunolocalization and fluorescence microscopy.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 21 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:166718 CAPLUS
DOCUMENT NUMBER: 130:205912
TITLE: Methods using phage display for selecting internalizing ligands for gene delivery
INVENTOR(S): Larocca, David
PATENT ASSIGNEE(S): Selective Genetics, Inc., USA
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9910485	A1	19990304	WO 1998-US17949	19980828

W: AL, AM, AT, AU, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK,
EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ,

PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AZ
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2302292	A1	19990304	CA 1998-2302292		19980828
AU 9890398	A	19990316	AU 1998-90398		19980828
AU 740541	B2	20011108			
EP 1009819	A1	20000621	EP 1998-942312		19980828
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
JP 2001513995	T	20010911	JP 2000-507793		19980828
RU 2234530	C2	20040820	RU 2000-107788		19980828
NO 2000000992	A	20000327	NO 2000-992		20000228
MX 200002075	A	20010821	MX 2000-2075		20000228
PRIORITY APPLN. INFO.:			US 1997-57067P	P	19970829
			WO 1998-US17949	W	19980828

AB A bacteriophage system is presented for selecting internalizing ligands for gene delivery. The bacteriophage carries a reporter or selectable marker and presents a ligand on its surface. More specifically, a library of potential ligands may be screened for the ability to successfully transduce target cells.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 22 OF 22 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:166523 CAPLUS
DOCUMENT NUMBER: 130:205931
TITLE: Receptor-mediated gene delivery using bacteriophage vectors
INVENTOR(S): Larocca, David; Baird, Andrew; Johnson, Wendy
PATENT ASSIGNEE(S): Selective Genetics, Inc., USA
SOURCE: PCT Int. Appl., 76 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9910014	A2	19990304	WO 1998-US17950	19980828
WO 9910014	A3	19990701		
W: AL, AM, AT, AU, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AZ				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6054312	A	20000425	US 1997-920396	19970829
CA 2302293	A1	19990304	CA 1998-2302293	19980828
AU 9891255	A	19990316	AU 1998-91255	19980828
AU 738816	B2	20010927		
EP 1005377	A2	20000607	EP 1998-943466	19980828
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001513577	T	20010904	JP 2000-507403	19980828
RU 2209088	C2	20030727	RU 2000-107789	19980828
US 6448083	B1	20020910	US 1999-258584	19990226
NO 2000000993	A	20000427	NO 2000-993	20000228

MX 200002076	A	20020327	MX 2000-2076	20000228
US 2003082143	A1	20030501	US 2002-171407	20020612
US 7148202	B2	20061212		

PRIORITY APPLN. INFO.:

US 1997-920396	A	19970829
WO 1998-US17950	W	19980828
US 1999-258584	A1	19990226

AB Filamentous phage particles displaying a ligand on their surface are used to deliver a therapeutic gene to a cell. The ligand is a fusion protein with a phage capsid protein, covalently conjugated to phage particles, or complexed with modified phage particles. Phagemid particles are constructed for mammalian cell transduction in which fibroblast growth factor-2 is linked to the phagemid coat protein via avidin-biotin, polylysine, covalent crosslinking, for genetic fusion. Sequences encoding endosomal escape moieties and/or nuclear localization sequences may be optionally included.

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	100.47	100.68

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-8.58	-8.58

FILE 'STNGUIDE' ENTERED AT 20:18:18 ON 26 SEP 2007

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Sep 24, 2007 (20070924/UP).

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.90	101.58

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-8.58

SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 20:27:28 ON 26 SEP 2007

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LOGINID:SSSPTA1639MLS

PASSWORD:
 * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'STNGUIDE' AT 21:10:36 ON 26 SEP 2007
FILE 'STNGUIDE' ENTERED AT 21:10:36 ON 26 SEP 2007
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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                      ENTRY    SESSION
FULL ESTIMATED COST                                    0.90     101.58

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                      ENTRY    SESSION
CA SUBSCRIBER PRICE                                    0.00      -8.58

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     (FILE 'HOME' ENTERED AT 20:10:55 ON 26 SEP 2007)

     FILE 'MEDLINE, BIOSIS, CAPLUS, SCISEARCH, EMBASE, WPIDS' ENTERED AT
     20:11:22 ON 26 SEP 2007
                E LAROCCA DAVI?/AU
L1            66 E4-E6
L2            50 DUP REM L1 (16 DUPLICATES REMOVED)
L3             0 PHAGE AND CELL AND (BIND OR BIND? OR BOUND) AND (WASH OR WASH?)
L4            22 PHAGE AND CELL AND L2
L5             0 BIOPANNING AND L2

     FILE 'STNGUIDE' ENTERED AT 20:18:18 ON 26 SEP 2007

=> f
ENTER LOGIC EXPRESSION, QUERY NAME, OR (END):end
SEARCH ENDED BY USER

=> fil medline biosis scisearch embase
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                      ENTRY    SESSION
FULL ESTIMATED COST                                    0.96     101.64

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                      ENTRY    SESSION
CA SUBSCRIBER PRICE                                    0.00      -8.58

FILE 'MEDLINE' ENTERED AT 21:11:26 ON 26 SEP 2007

FILE 'BIOSIS' ENTERED AT 21:11:26 ON 26 SEP 2007
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=> e spear matte?/au
E1            1     SPEAR MARK C/AU
E2            1     SPEAR MATT A/AU
E3            0 --> SPEAR MATTE?/AU
E4            5     SPEAR MATTHEW/AU
E5           24     SPEAR MATTHEW A/AU
E6            2     SPEAR MAYNARD L/AU
E7            1     SPEAR MEREDITH E/AU
E8            3     SPEAR MICHAEL/AU
E9           29     SPEAR MICHAEL L/AU
E10           1     SPEAR MIKE/AU
E11          50     SPEAR N/AU
E12           2     SPEAR N A/AU

=> e2-e5
L6           30 ("SPEAR MATT A"/AU OR "SPEAR MATTE?"/AU OR "SPEAR MATTHEW"/AU
                OR "SPEAR MATTHEW A"/AU)

=> annexin and l6
L7            0 ANNEXIN AND L6

=> apopto? and l6
L8            1 APOPTO? AND L6

=> d ibib abs l8

L8   ANSWER 1 OF 1  BIOSIS  COPYRIGHT (c) 2007 The Thomson Corporation  on STN
ACCESSION NUMBER:   2000:385448  BIOSIS
DOCUMENT NUMBER:    PREV200000385448
TITLE:              Cytotoxicity, apoptosis, and viral replication in
                    tumor cells treated with oncolytic ribonucleotide
                    reductase-defective herpes simplex type 1 virus (hrR3)
                    combined with ionizing radiation.
AUTHOR(S):          Spear, Matthew A. [Reprint author]; Sun, Fang;
                    Eling, David J.; Gilpin, Elizabeth; Kipps, Thomas J.;
                    Chiocca, E. Antonio; Bouvet, Michael
CORPORATE SOURCE:   Department of Radiation Oncology, University of California
                    San Diego Medical Center, 200 West Arbor Drive, MC 8757,
                    San Diego, CA, 92103-8757, USA
SOURCE:             Cancer Gene Therapy, (July, 2000) Vol. 7, No. 7, pp.
                    1051-1059. print.
                    ISSN: 0929-1903.
DOCUMENT TYPE:      Article
LANGUAGE:           English
ENTRY DATE:         Entered STN: 6 Sep 2000
                    Last Updated on STN: 8 Jan 2002
AB   The viral ribonucleotide reductase (rR)-defective herpes simplex type-1
     (HSV-1) virus (hrR3) has been shown previously to preferentially replicate
     in and kill tumor cells. This selectivity is associated with tumor cell
     up-regulation of mammalian rR. Ionizing radiation (IR) is currently used
     in the therapy of many malignancies, including glioblastoma, cervical
     carcinoma, and pancreatic carcinoma. IR has been shown to up-regulate
     mammalian rR in tumor cells and appears to increase the efficacy of at
     least one non-rR-deleted HSV-1 strain in an in vivo tumor model. Here, we
     test the hypothesis that a single therapeutic radiation fraction will
     increase the replication and toxicity of hrR3 for malignant cell lines in
     vitro. PANC-1 pancreatic carcinoma, U-87 glioblastoma, and CaSki cervical
     carcinoma cell lines were treated with varying doses of IR and
     subsequently infected with hrR3 or KOS (wild-type HSV-1 strain). Cell
     survival was then measured using the 3-(4,5-dimethylthiazol-2-yl)-2,5-
     diphenyl tetrazolium bromide assay and trypan blue exclusion cytometry.
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At 72 hours posttreatment, irradiation with 2 Gy reduced survival from 100% to 76% in noninfected cells, from 61% to 48% in KOS-infected cells, and from 39% to 27% in hrR3-infected PANC-1 cells. As such, analysis of variance indicated that the toxicity of the two modalities was additive. Similar additivity was seen in U-87 MG and CaSki cells. Absolute survival of hrR3-infected or KOS-infected PANC-1 cells decreased as a function of time after treatment (24-72 hours) and multiplicity of infection (MOI) (0.05-5.0). However, the relative decrease in survival with the addition of IR to hrR3 or KOS in PANC-1 cells was not markedly affected by altering MOI (0.05-5.0), time (24-72 hours), radiation dose (2-20 Gy), or cell culture conditions (confluent/growth arrested). We used fluorescence-activated cell sorter analysis with the cationic lipophilic dye DiOC6 to quantify a reduction in mitochondrial membrane potential that is associated with apoptosis. Fluorescence-activated cell sorter analysis indicated increased apoptosis in both hrR3- and IR-treated cells at 48-72 hours, with hrR3 alone producing the most induction. Viral yields from PANC-1 cells after irradiation and infection were examined. No significant differences were seen between irradiated and nonirradiated cells in viral replication, with hrR3 producing single-step titers of 3.1 +- 0.9 X 105 and 4.0 +- 1.2 X 105 plaque-forming units/mL in nonirradiated and irradiated cells. Thus, complementary toxicity was seen between IR and hrR3 or KOS, regardless of cell type, time, MOI, IR dose, or culture conditions, without evidence of augmented apoptosis or viral replication.

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	7.70	109.34

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-8.58

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LAST RELOADED: Sep 24, 2007 (20070924/UP).

=> fil medline biosis caplus scisearch embase wpids

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.24	109.58

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-8.58

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FILE 'EMBASE' ENTERED AT 21:15:52 ON 26 SEP 2007

FILE 'WPIDS' ENTERED AT 21:15:52 ON 26 SEP 2007


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=> Annexin (w) V
L9       24892 ANNEXIN (W) V

=> fluores? (s) Annexin (w) V
L10       2664 FLUORES? (S) ANNEXIN (W) V

=> fluores? (s) Annexin (w) V and apopto?
L11       2210 FLUORES? (S) ANNEXIN (W) V AND APOPTO?

=> library and cell and (recover or recover?) (s) ligand
L12        103 LIBRARY AND CELL AND (RECOVER OR RECOVER?) (S) LIGAND

=> dup rem l12
PROCESSING COMPLETED FOR L12
L13         92 DUP REM L12 (11 DUPLICATES REMOVED)

=> l13 and l11
L14          1 L13 AND L11

=> d ibib abs l14
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L14 ANSWER 1 OF 1 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

ACCESSION NUMBER: 2003-731377 [69] WPIDS
DOC. NO. CPI: C2003-201202 [69]
TITLE: Selection of ligands capable of activating a cellular response comprises contacting target cells with a library of ligands and exposing the cells to an indicator to detect any activated cells
DERWENT CLASS: B04
INVENTOR: SPEAR A M; SPEAR M; SPEAR M A; SPEARA M
PATENT ASSIGNEE: (SPEA-I) SPEAR M A; (REGC-C) UNIV CALIFORNIA
COUNTRY COUNT: 98

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2003062264	A2	20030731	(200369)*	EN	19[2]	
AU 2003205186	A1	20030902	(200422)	EN		
US 20050176005	A1	20050811	(200553)	EN		
AU 2003205186	A8	20051027	(200629)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003062264	A2	WO 2003-US1426	20030116
AU 2003205186	A1	AU 2003-205186	20030116
US 20050176005	A1	WO 2003-US1426	20030116
US 20050176005	A1	US 2005-501609	20050415
AU 2003205186	A8	AU 2003-205186	20030116

FILING DETAILS:

PATENT NO	KIND		PATENT NO	
AU 2003205186	A1	Based on	WO 2003062264	A
AU 2003205186	A8	Based on	WO 2003062264	A

PRIORITY APPLN. INFO: US 2002-349893P 20020116
AN 2003-731377 [69] WPIDS
AB WO 2003062264 A2 UPAB: 20060120
NOVELTY - Selection of ligands capable of activating a cellular response in target cells comprises contacting the cells with a library of ligands, exposing the cells to an indicator to detect any activated cells, collecting detected cells and recovering the ligand from the collected cells.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for selection of ligands capable of binding to activated target cells by a method as above except that an isolation means (not defined) is used to collect detected cells.

ACTIVITY - Cytostatic.

No supporting data provided.

MECHANISM OF ACTION - Gene Therapy.

USE - The method is useful for selecting ligands capable of activating apoptosis, proliferation, differentiation, adhesion, migration, cytokine secretion or the cessation of such processes, or phosphorylation, dephosphorylation, calcium flux, target molecule cleavage, protein-protein interaction, protein-nucleic acid interaction, nucleic acid-nucleic acid interaction or fluorescence, in cancer cells, preferably acute lymphoblastic leukemia (ALL) cells, especially Jurkat, Molt-4 or Tall-104 cells or a patient's ALL cells (claimed). Such ligands (peptides) may be useful as therapeutic and/or diagnostic agents e.g. in the treatment of cancer.

=> d his

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FILE 'MEDLINE, BIOSIS, CAPLUS, SCISEARCH, EMBASE, WPIDS' ENTERED AT 20:11:22 ON 26 SEP 2007

E LAROCCA DAVI?/AU

L1 66 E4-E6
L2 50 DUP REM L1 (16 DUPLICATES REMOVED)
L3 0 PHAGE AND CELL AND (BIND OR BIND? OR BOUND) AND (WASH OR WASH?)
L4 22 PHAGE AND CELL AND L2
L5 0 BIOPANNING AND L2

FILE 'STNGUIDE' ENTERED AT 20:18:18 ON 26 SEP 2007

FILE 'MEDLINE, BIOSIS, SCISEARCH, EMBASE' ENTERED AT 21:11:26 ON 26 SEP 2007

E SPEAR MATTE?/AU

L6 30 E2-E5
L7 0 ANNEXIN AND L6
L8 1 APOPTO? AND L6

FILE 'STNGUIDE' ENTERED AT 21:13:29 ON 26 SEP 2007

FILE 'MEDLINE, BIOSIS, CAPLUS, SCISEARCH, EMBASE, WPIDS' ENTERED AT 21:15:52 ON 26 SEP 2007

L9 24892 ANNEXIN (W) V
L10 2664 FLUORES? (S) ANNEXIN (W) V
L11 2210 FLUORES? (S) ANNEXIN (W) V AND APOPTO?
L12 103 LIBRARY AND CELL AND (RECOVER OR RECOVER?) (S) LIGAND

L13 92 DUP REM L12 (11 DUPLICATES REMOVED)
L14 1 L13 AND L11

=> py>2002 and l13
L15 61 PY>2002 AND L13

=> l13 not l15
L16 31 L13 NOT L15

=> t ti l16 1-31

L16 ANSWER 1 OF 31 MEDLINE on STN
TI Ligand activation of ELK receptor tyrosine kinase promotes its association with Grb10 and Grb2 in vascular endothelial cells.

L16 ANSWER 2 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
TI Human immunoglobulin A (IgA)-specific ligands from combinatorial engineering of protein A

L16 ANSWER 3 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
TI Cloning of a cDNA sequence encoding ligand (SExCkine) of human for a G protein-coupled receptor by expression cloning method

L16 ANSWER 4 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
TI Smart polymer-coupled bioactive entities and uses thereof

L16 ANSWER 5 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
TI Pulsed ultrafiltration: a new method for screening and measuring ligand binding

L16 ANSWER 6 OF 31 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN
TI STABLE: protein-DNA fusion system for screening of combinatorial protein libraries in vitro

L16 ANSWER 7 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New polypeptide comprising an enterokinase recognition sequence, useful for isolating, purifying and controlling the activity of the protein of interest, and for detecting the expression of a fusion protein on the recombinant host

L16 ANSWER 8 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New isolated cDNA encoding a T-cell death associated polypeptide, MAPOP-3, useful for diagnosing and treating breast adenocarcinoma

L16 ANSWER 9 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New polynucleotide encoding excitatory amino acid receptors, especially N-methyl-D-aspartate type receptors, useful for screening test ligand for binding with human CNS receptor

L16 ANSWER 10 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Novel isolated, purified cDNA molecule which encodes a rapamycin and FKBP12 target, referred as RAFT1 protein, useful as probe or primer for identifying other mammalian RAFT proteins

L16 ANSWER 11 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Novel mammalian nucleic acid molecule encoding mammalian imidazoline receptor, useful for screening library of molecules or compounds to identify molecule or compound which specifically binds the nucleic acid molecule

L16 ANSWER 12 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Novel human angiopoietin and its encoding cDNA useful for diagnosis, prognosis, treatment and evaluation of therapies for cardiovascular, neoplastic, immune and reproductive disorders

L16 ANSWER 13 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New isolated zpep10 polypeptide useful for producing an antibody to the polypeptide and for modulating spermatogenesis and egg-sperm interaction in in vitro or in vivo systems

L16 ANSWER 14 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Novel isolated cDNA molecule encoding Ndr2-related protein 1 (NRP1) or NRP 2, and NRP proteins encoded by cDNA molecules which are useful for diagnosing intestine, breast, uterine cancers and for treating the cancers

L16 ANSWER 15 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New polynucleotides encoding testis specific glycoprotein zpep10, useful for modulating spermatogenesis, or in gene therapy for treating testicular cancer, infertility, or in the recovery of function following testicular surgery

L16 ANSWER 16 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Novel Ret ligand polypeptide useful for suppressing growth of a tumor cell that expresses Ret and for modulating Ret signal transduction involving a cell expressing Ret polypeptide or Ret ligand polypeptide

L16 ANSWER 17 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Identifying and recovering organ homing molecules or peptides by in vivo panning comprises administering a library of diverse peptides linked to a tag which facilitates recovery of these peptides

L16 ANSWER 18 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Inhibiting growth of target cell or target tissue, useful for promoting removal of cells by immune system

L16 ANSWER 19 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New gene which encodes a beta-integrin-like protein, used particularly for enhancing the collection of bone marrow cells from a mammal

L16 ANSWER 20 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Nucleic acid encoding a steroid receptor co-activator-3, useful for determining the neoplastic states of cells in humans or animals

L16 ANSWER 21 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Binding molecules specific for receptor-ligand complex

L16 ANSWER 22 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Modified phage display library depleted in phage that react with native cellular proteins - provides reduced noise and higher signal-to-noise ratio when screened against cells transfected to express a specific heterologous protein, used to identify potential therapeutic and diagnostic agents

L16 ANSWER 23 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New HOQBQ59 polypeptide - useful for diagnosing or treating bone loss, inflammatory and other immunodeficiency diseases

L16 ANSWER 24 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New ICE-LAP 10 polypeptide and polynucleotide - used for treatment of e.g. cancer, inflammation, allergy, asthma, rheumatoid arthritis, stroke and ischaemia

L16 ANSWER 25 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Nucleic acid encoding soluble form of vascular endothelial cell growth factor receptor - and related vector and transformed cells, expressing soluble inhibitor of VEGF useful for inhibiting angiogenesis, e.g. for treatment of psoriasis, arthritis, tumours etc.

L16 ANSWER 26 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New human plasma platelet activating factor acetyl:hydrolase - useful as anti-inflammatory for treatment of asthma, anaphylaxis, shock, etc

L16 ANSWER 27 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New DNA encoding polypeptide ligand for ST2, and related vectors and recombinant proteins - used e.g. to deliver diagnostic and therapeutic agents to lymphoma cells

L16 ANSWER 28 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New isolated bone marrow endothelial cells - used to isolate and recover the cytokine(s) that they produce or for ex vivo expansion of bone marrow

L16 ANSWER 29 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Isolation of orphan receptor ligands - by mutagenising transfected cells which express the orphan receptor and obtaining ligands from surviving cells

L16 ANSWER 30 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Identifying peptide(s) that bind specifically to dynein, vinculin or enzymes, eg. glutathione-S-transferase - by screening random peptide libraries, useful e.g. in immunoassays, affinity purification., tumour treatment, etc.

L16 ANSWER 31 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Novel, isolated receptor-type protein tyrosine phosphatase-sigma - and encoding DNA, useful e.g. for detecting neuro-blastomas

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     (FILE 'HOME' ENTERED AT 20:10:55 ON 26 SEP 2007)

     FILE 'MEDLINE, BIOSIS, CAPLUS, SCISEARCH, EMBASE, WPIDS' ENTERED AT
     20:11:22 ON 26 SEP 2007
                E LAROCCA DAVI?/AU
L1            66 E4-E6
L2            50 DUP REM L1 (16 DUPLICATES REMOVED)
L3             0 PHAGE AND CELL AND (BIND OR BIND? OR BOUND) AND (WASH OR WASH?)
L4            22 PHAGE AND CELL AND L2
L5             0 BIOPANNING AND L2

     FILE 'STNGUIDE' ENTERED AT 20:18:18 ON 26 SEP 2007

     FILE 'MEDLINE, BIOSIS, SCISEARCH, EMBASE' ENTERED AT 21:11:26 ON 26 SEP
     2007
                E SPEAR MATTE?/AU
L6            30 E2-E5
L7             0 ANNEXIN AND L6
L8             1 APOPTO? AND L6

     FILE 'STNGUIDE' ENTERED AT 21:13:29 ON 26 SEP 2007

     FILE 'MEDLINE, BIOSIS, CAPLUS, SCISEARCH, EMBASE, WPIDS' ENTERED AT
     21:15:52 ON 26 SEP 2007
L9         24892 ANNEXIN (W) V
L10         2664 FLUORES? (S) ANNEXIN (W) V
L11         2210 FLUORES? (S) ANNEXIN (W) V AND APOPTO?
L12          103 LIBRARY AND CELL AND (RECOVER OR RECOVER?) (S) LIGAND
L13           92 DUP REM L12 (11 DUPLICATES REMOVED)
L14            1 L13 AND L11
L15           61 PY>2002 AND L13
L16           31 L13 NOT L15

=> t ti l15 1-61

L15  ANSWER 1 OF 61     MEDLINE on STN
TI   In vivo biotinylated proteins as targets for phage-display selection
     experiments.

L15  ANSWER 2 OF 61     MEDLINE on STN
TI   Selection of internalizing ligand-display phage using rolling
     circle amplification for phage recovery.

L15  ANSWER 3 OF 61  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Recovery of analytes using combinatorial libraries

L15  ANSWER 4 OF 61  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Selection and amplification of ligand-binding protein domains using phage
     display libraries

L15  ANSWER 5 OF 61  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Use of viral vectors carrying marker genes to analyze protein interactions
     and to identify ligand peptides

L15  ANSWER 6 OF 61  CAPLUS  COPYRIGHT 2007 ACS on STN
TI   Ribosome complexes as selection particles for in vitro display and
     evolution of proteins

L15  ANSWER 7 OF 61  WPIDS COPYRIGHT 2007       THE THOMSON CORP on STN

TI   Identifying an antibody that binds to a cell surface-associated
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target ligand of an orphan ligand that is an orphan natural killer (NK) cell receptor by immunizing a vertebrate animal with a first preparation of target cells

L15 ANSWER 8 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Detection, identification and characterization of amount of blood plasma-derived target, by contacting ligand-support complexes with whole blood sample to bind target(s) to ligand-support complex and eluting the target of the complexes

L15 ANSWER 9 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Global protein, peptide and/or metabolite expression profiling of a complex analyte sample, comprises immunization of a non-human mammalian subject with enriched complex analyte sample; and generation of a panel of monoclonal antibodies

L15 ANSWER 10 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New array comprising membrane-associated nucleic acid molecules, useful for identifying membrane-associated proteins for treating hyperproliferative disorder, such as neoplasm, a tumor, a malignancy, a metastasis, or cancer

L15 ANSWER 11 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Composition useful for diagnosis, staging, treating or monitoring treatment of a subject with a brain disorder, comprises several cDNAs that are differentially expressed in brain disorders

L15 ANSWER 12 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Identifying small molecule ligand that promotes cell attachment and proliferation, by introducing mammalian cells to compound bead combinatorial small molecule library, and determining chemical structure of ligand attached to bead

L15 ANSWER 13 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Expressing a target protein, e.g. hormone, enzyme, antibody, protein, antigen, or cytokine, on the surface of cells or spores comprises selecting a gene encoding an exosporium

L15 ANSWER 14 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Selecting phage encoding desired protein from several display phage, by forming phage-immobilized target complexes, infecting cells with complexes to form population of infected cells, producing replicate phage from infected cells

L15 ANSWER 15 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Recovering a polypeptide that unfolds reversibly from a repertoire of polypeptides for treating e.g., cancer, by unfolding a portion of the displayed polypeptides and refolding a portion of the unfolded polypeptides

L15 ANSWER 16 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Producing chromatogram useful for measuring protein ligand interaction, by performing affinity chromatography of protein using ligand coupled

support, measuring amount of protein in aliquoted fraction by PCR, producing chromatogram

L15 ANSWER 17 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Identifying modulators of G protein coupled receptor (GPCR) signaling, useful for treating diseases associated with altered GPCR signaling (e.g. stroke), comprises screening a peptide library for high affinity binding to the GPCR

L15 ANSWER 18 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Identifying protein target capable of interacting with chemical compound, by immobilizing compound, contacting compound with sample, isolating target that interact with compound, determining identity of target by mass spectrometry

L15 ANSWER 19 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Novel nucleic acid expression construct having a polynucleotide encoding mitochondrial permeability transition pore component polypeptide, useful in identifying agents altering mitochondrial permeability transition

L15 ANSWER 20 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Identifying, analyzing and/or cloning nucleic acid isoforms, useful for preparing a probe, diagnosing a disease, or assessing responsiveness of a patient to a treatment, comprises preparing complementary nucleic acid isoforms

L15 ANSWER 21 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI A composition comprises polynucleotides that are modulated in response to cytokines, useful for diagnosing or treating conditions associated with an immune response, e.g. infection, diabetes, allergies or scleroderma

L15 ANSWER 22 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New cDNAs encoding Xin-related proteins, useful for detecting the differential expression of a nucleic acid in a sample, and for screening a plurality of molecules or compounds

L15 ANSWER 23 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Selecting candidate ligand that binds target molecule, by contacting sample having target molecule with candidate ligands, to form complex, recovering candidate ligands from complex, determining UV spectrum of recovered candidate ligand

L15 ANSWER 24 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New fibrinogen binding moieties, useful for detecting or isolating fibrinogen molecules in a solution, for blood circulation imaging, or for increasing the serum half-life of a diagnostic or therapeutic compound

L15 ANSWER 25 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New combination comprising isolated cDNAs that are differentially expressed in neuronal differentiation and morphogenesis, useful for screening molecules or compounds to identify a ligand that specifically binds a protein

L15 ANSWER 26 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New combination having a plurality of cDNAs whose expression is modulated by epidermal growth factor, useful for diagnosing, treating, staging or monitoring treatment for cancer, particularly breast cancer

L15 ANSWER 27 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Combination containing several polynucleotide that are differentially expressed in foam cells and complements of the polynucleotides, useful for diagnosing cardiovascular disease or atherosclerosis

L15 ANSWER 28 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI A composition for preventing or treating viral infections associated with high lethality and incapacity (e.g. Ebola virus) comprises a filamentous phage presenting a ligand on its surface, and a physiological excipient or diluent

L15 ANSWER 29 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Novel purified native kappa opioid receptor useful for generating antibodies against the receptor to determine a subject's potential sensitivity to receptor-specific agent such as analgesic agent

L15 ANSWER 30 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Genetic package display method useful for detecting and identifying protein-protein interactions that facilitate internalization and transgene expression

L15 ANSWER 31 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Selection of ligands capable of activating a cellular response comprises contacting target cells with a library of ligands and exposing the cells to an indicator to detect any activated cells

L15 ANSWER 32 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Combination of several cDNAs whose expression is modulated by epidermal growth factor and are associated with breast cancer, useful in microarrays for diagnosing breast cancer

L15 ANSWER 33 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Identifying ligands that promote cell attachment and proliferation, by incubating mammalian cell suspension to compounds attached on supports, isolating supports with cells grown on it, determining structure of compounds

L15 ANSWER 34 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Novel intracellular caspase-8 interacting polypeptide, designated as Cari polypeptide, useful for treating inflammatory disease including multiple sclerosis, autoimmune uveoretinitis and diabetes

L15 ANSWER 35 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Improved hybrid ligands for isolating ligand binding polypeptides for a user-specified ligand, or ligands for user-specified target polypeptides, has a ligand connected by a linker to another ligand

L15 ANSWER 36 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Screening a library of compounds for desired biological activity, comprises providing an icosahedral phage displaying different compounds, and assaying the phage to identify a phage displaying compound with a desired property

L15 ANSWER 37 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Novel human G-protein chemokine receptor polypeptide useful for identifying modulators for stimulating hematopoiesis, wound healing, leukemia, for treating allergy, rheumatoid arthritis, shock and as research agents

L15 ANSWER 38 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Identifying regulator polypeptides which influence target transcriptional regulatory regions, useful for treating cancer, comprises introducing host cells expressing the polypeptide into a library of polynucleotides

L15 ANSWER 39 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Selecting candidate ligand that binds target molecule, to identify function, by contacting target sample with library of ligands to form a complex, isolating the complex, recovering ligands from complex and identifying recovered ligands

L15 ANSWER 40 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Identifying ligand for hydrophobic protein based on affinity selection which can operate in the presence of amphiphile without regard to the specific biological function of hydrophobic target protein

L15 ANSWER 41 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Novel isolated or substantially purified Von Willebrand factor-cleaving protease, useful for producing preparation for therapy of thrombosis and thromboembolic disease such as thrombotic thrombocytic purpura

L15 ANSWER 42 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI High-throughput screening for internalizing antibodies and identifying ligands that are internalized into a cell, comprises detecting the presence of a reporter within the cell that has been contacted with a ligand

L15 ANSWER 43 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Composition comprising cDNA molecules coexpressed with one or more known cell cycle genes, useful for diagnosis and treatment of cell cycle disorders e.g. glomerulonephritis, multiple sclerosis, rheumatoid arthritis

L15 ANSWER 44 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Recovery and purification of a biological ,e.g., an active pharmaceutical compound or enzyme, produced by cells (of high density) in a bioreactor comprises acoustic sonoperfusion and Expanded Bed Specific Adsorption (EBSA)

L15 ANSWER 45 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New polypeptide comprising an enterokinase recognition sequence for isolating and purifying a protein of interest or its fragment

L15 ANSWER 46 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Composition useful for diagnosis of conditions, disorders or diseases associated with atherosclerosis, comprises several polynucleotides that are differentially expressed in foam cell development

L15 ANSWER 47 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Novel mammalian aspartyl proteases useful for characterizing, diagnosing, treating, preventing Alzheimer's disease and down syndrome associated with altered expression of the aspartyl protease

L15 ANSWER 48 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Removal of negatively charged substance from aqueous liquid, involves contacting aqueous liquid with matrix containing ligands followed by desorbing negatively charged substance from matrix

L15 ANSWER 49 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Novel truncated E2 core protein of 2-oxo acid dehydrogenase multienzyme complex, which assembles into a core structure of the complex, useful in screening for polypeptides which bind target proteins of interest

L15 ANSWER 50 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New cell and tissue specific polynucleotides useful for diagnosis, prognosis or monitoring of treatments for disorders where the gene is associated with a cancer, immunopathology or neuropathology

L15 ANSWER 51 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New nucleic acid comprising a gene expressed in response to polycyclic aromatic hydrocarbon exposure useful in diagnosing, prognosing, preventing and treating human disorders such as cancer and its complications

L15 ANSWER 52 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Composition comprising atherosclerosis-associated polynucleotide useful in diagnosis, prognosis, treatment, and prevention of atherosclerosis and stroke, myocardial infarction, or hypertension

L15 ANSWER 53 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Nucleic acid molecule encoding mammalian phospholipid transfer protein, and its fragments, useful for diagnosis, evaluation, and treatment of diseases associated with the gene expression and for producing model systems

L15 ANSWER 54 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Novel 4-helix bundle cytokine, Zalpha31, useful for regulating the function of immune system and for treating thyroid, adrenal, lymphoid, inflammatory, pancreatic, blood or bone disorders

L15 ANSWER 55 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Isolation, analysis and sequencing of proteins especially binding proteins

such as antibodies involves using mass spectrometry for direct or indirect sequencing

L15 ANSWER 56 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Nucleic acids encoding lipocalin family proteins useful for treating acquired immuno-deficiency syndrome, Addison's disease, Crohn's disease, Graves' disease, rheumatoid arthritis and myelofibrosis

L15 ANSWER 57 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Selecting internalized ligands displayed on a genetic package by contacting them with a cell, where each package carries a gene encoding a detectable product expressed on internalization, useful for identifying ligands for gene therapy

L15 ANSWER 58 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New nucleic acid encoding Tumor necrosis factor Receptor-Associated Factor (TRAF) protein-interacting hereditary multiple extoses (TREX) protein, useful in the diagnosing cancer

L15 ANSWER 59 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Selection method for internalizing ligands - using bacteriophage which express peptides and a detectable product and cells which comprise a receptor for internalization

L15 ANSWER 60 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI New human cerberus protein - useful as an antagonist of a bone morphogenic protein for treatment of, e.g. osteosarcoma

L15 ANSWER 61 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN

TI Peptide affinity ligands for purification of tissue plasminogen activator - provide specific recovery from culture media or biological fluids and can be formulated as reusable chromatography matrices

=> d ibib abs l16 6,8,17,21,22

L16 ANSWER 6 OF 31 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 1999:666619 SCISEARCH
THE GENUINE ARTICLE: 232JB
TITLE: STABLE: protein-DNA fusion system for screening of combinatorial protein libraries in vitro
AUTHOR: Doi N; Yanagawa H (Reprint)
CORPORATE SOURCE: Mitsubishi Kasei Inst Life Sci, 11 Minamiooya, Tokyo 1948511, Japan (Reprint); Mitsubishi Kasei Inst Life Sci, Tokyo 1948511, Japan
COUNTRY OF AUTHOR: Japan
SOURCE: FEBS LETTERS, (27 AUG 1999) Vol. 457, No. 2, pp. 227-230. ISSN: 0014-5793.
PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 27
ENTRY DATE: Entered STN: 1999
Last Updated on STN: 1999

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB We have developed a new method that permits the complete in vitro construction and selection of peptide or protein libraries. This method relies on an in vitro transcription/translation reaction compartmentalized in water in oil emulsions. In each emulsion compartment, streptavidin (STA)-fused polypeptides are synthesized and attached to the encoding DNA via its biotin label. The resulting protein-DNA fusion molecules recovered from the emulsion can be subjected to affinity selection based on the properties of the peptide portion, whose sequence can be determined from that of its DNA-tag, This method, named 'STABLE' (STA-biotin linkage in emulsions), should be useful for rapid in vitro evolution of proteins and for ligand-based selection of cDNA libraries. (C) 1999 Federation of European Biochemical Societies.

L16 ANSWER 8 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2003-352181 [33] WPIDS
CROSS REFERENCE: 2000-170917; 2003-810390; 2003-810875; 2003-852123
DOC. NO. CPI: C2003-092718 [33]
TITLE: New isolated cDNA encoding a T-cell death associated polypeptide, MAPOP-3, useful for diagnosing and treating breast adenocarcinoma
DERWENT CLASS: B04; D16
INVENTOR: CORLEY N C; GUEGLER K J; PATTERSON C; YUE H
PATENT ASSIGNEE: (INCY-N) INCYTE GENOMICS INC
COUNTRY COUNT: 1

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 6500642	B1	20021231	(200333)*	EN	34[2]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6500642 B1	CIP of	US 1998-106920	19980629
US 6500642 B1		US 2000-602565	20000622

PRIORITY APPLN. INFO: US 2000-602565 20000622
US 1998-106920 19980629

AN 2003-352181 [33] WPIDS
CR 2000-170917; 2003-810390; 2003-810875; 2003-852123
AB US 6500642 B1 UPAB: 20050529
NOVELTY - An isolated cDNA (I) encoding the protein having a fully defined MAPOP-3 polypeptide (a T-cell death associated polypeptide) sequence of 127 amino acids (S1) as given in the specification, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) A composition comprising (I) or the complement of (I);
(2) A substrate comprising (I) or the complement of (I);
(3) A probe consisting of (I) or the complement of (I);
(4) A vector (II) comprising (I); and
(5) An isolated host cell (III) comprising (II).

ACTIVITY - Cytostatic.
No supporting data is given.
MECHANISM OF ACTION - Gene therapy.
No supporting data is given.

USE - (I) is useful for producing a protein which comprises culturing (III) under conditions for protein expression and recovering the protein from the host cell culture. (I)

is also useful for detecting differential expression of a nucleic acid in a sample which comprises hybridizing (I) to the nucleic acids, thereby forming hybridization complexes and comparing hybridization complex formation with a standard, where the comparison indicates differential expression of the cDNA in the sample. The method further comprises amplifying the nucleic acids of the sample prior to hybridization. The detection of differential expression of cDNA is diagnostic of breast adenocarcinoma, where the sample is a breast tissue (claimed). (I) is useful for screening a library or several molecules or compounds to identify at least one ligand that specifically binds to the cDNA molecule. (I) is also useful for producing a mammalian model system. (I) is useful as diagnostic agent to detect and quantify differential gene expression in breast adenocarcinoma or to monitor mRNA levels during therapeutic intervention. (I) is useful as therapeutic agent for treating breast adenocarcinoma. (I) is used to produce transgenic cell line or organisms which are model systems for human breast cancer and upon which the toxicity and efficacy of potential treatments may be tested. Toxicology studies, clinical trials, and subject/patient treatment profiles may be performed monitored using (I).

L16 ANSWER 17 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2000-410850 [35] WPIDS
CROSS REFERENCE: 1997-202359; 2001-610691; 2002-040196; 2004-328524; 2005-172258
DOC. NO. CPI: C2000-124423 [35]
TITLE: Identifying and recovering organ homing molecules or peptides by in vivo panning comprises administering a library of diverse peptides linked to a tag which facilitates recovery of these peptides
DERWENT CLASS: B04; D16
INVENTOR: PASQUALINI R; RUOSLAHTI E
PATENT ASSIGNEE: (BURN-N) BURNHAM INST
COUNTRY COUNT: 1

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 6068829	A	20000530	(200035)*	EN	20[0]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6068829 A	CIP of	US 1995-526710	19950911
US 6068829 A	CIP of	US 1997-813273	19970310
US 6068829 A		US 1997-862855	19970623

FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 6068829 A	CIP of	US 5622699 A

PRIORITY APPLN. INFO: US 1997-862855 19970623
US 1995-526710 19950911
US 1997-813273 19970310
AN 2000-410850 [35] WPIDS
CR 1997-202359; 2001-610691; 2002-040196; 2004-328524; 2005-172258
AB US 6068829 A UPAB: 20060116
NOVELTY - Identifying and recovering peptides or peptidomimetics that home to a selected organ or tissue, comprises administering to a subject a

library of diverse peptides or peptidomimetics linked to a tag that facilitates the recovery of these peptides.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) a method of recovering peptides or peptidomimetics that home to a selected organ or tissue that comprises:

(a) administering to a subject a library of diverse peptides or peptidomimetics, each linked to a tag that facilitates recovery of these peptides;

(b) collecting a sample from the selected organ or tissue; and

(c) recovering the peptides or peptidomimetics that home to the selected organ or tissue by isolating molecules comprising the tag from the sample; and

(2) a method of identifying a peptide or a peptidomimetic that homes to a selected organ or tissue by:

(a) employing steps of (1a-b), where each of the diverse peptides or peptidomimetics is linked to a unique oligonucleotide tag; and

(b) identifying a unique oligonucleotide tag present in the sample to identify a peptide or peptidomimetic that homes to the selected organ or tissue.

USE - The method is useful for directly identifying and recovering peptides or peptidomimetics that home to a selected organ or tissue (claimed). Identified molecules are useful for targeting a desired moiety, e.g. a drug, a toxin, or a detectable label which can be linked to the molecule, to the selected organ, or for identifying target molecules such as a cell surface receptor or a ligand for a receptor recognized by the organ homing peptide. The target molecule is useful for raising an antibody specific for the target molecule.

ADVANTAGE - Unlike previous methods which require a molecule to be identified using in vitro screening methods, and subsequent examination to determine whether it maintains its specificity in vivo, the new method in vivo panning provides a direct means of identifying molecules that specifically home to a selected organ. It does not require prior knowledge or availability of the target molecule.

L16 ANSWER 21 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1999-287955 [24] WPIDS
DOC. NO. CPI: C1999-085089 [24]
TITLE: Binding molecules specific for receptor-ligand complex
DERWENT CLASS: B04; D16; P14
INVENTOR: BOSSLET K; PETRUL H
PATENT ASSIGNEE: (BOSS-I) BOSSLET K
COUNTRY COUNT: 52

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 9919361	A1	19990422	(199924)*	DE	37[0]	
DE 19744531	A1	19990527	(199927)	DE		
AU 9911518	A	19990503	(199937)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9919361	A1	WO 1998-EP6386	19981008
DE 19744531	A1	DE 1997-19744531	19971009
AU 9911518	A	AU 1999-11518	19981008

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9911518 A	Based on	WO 9919361 A

PRIORITY APPLN. INFO: DE 1997-19744531 19971009
AN 1999-287955 [24] WPIDS
AB WO 1999019361 A1 UPAB: 20050521
NOVELTY - Binding molecules (I) against a receptor-ligand complex (II) produced by immunization, or immunoselection, using (II), in which the components are attached by at least one covalent bond.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(a) preparation of (I) that are antibodies by immunization, cell fusion or immunoselection techniques; and
(b) production of (I) by recombinant expression.
ACTIVITY - Anti inflammatory; anti cancer; anti leukemic.
MECHANISM OF ACTION - Specific binding interaction with activated receptor involved in cell proliferation.
USE - (I), optionally labeled or attached to a toxin or other active agent, are used in therapy and diagnosis of inflammation, solid cancers (e.g. carcinoma of breast, stomach, prostate, lung, colon, and pancreas, or Kaposi's sarcoma) and leukemia.
ADVANTAGE - (I) recognize an epitope present on (II) but not on its separate components, i.e. they are specific for activated receptors and thus for proliferative tissue.

Member(0002)
ABEQ DE 19744531 A1 UPAB 20050521
NOVELTY - Binding molecules (I) against a receptor-ligand complex (II) produced by immunization, or immunoselection, using (II), in which the components are attached by at least one covalent bond.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(a) preparation of (I) that are antibodies by immunization, cell fusion or immunoselection techniques; and
(b) production of (I) by recombinant expression.
ACTIVITY - Anti inflammatory; anti cancer; anti leukemic.
MECHANISM OF ACTION - Specific binding interaction with activated receptor involved in cell proliferation.
USE - (I), optionally labeled or attached to a toxin or other active agent, are used in therapy and diagnosis of inflammation, solid cancers (e.g. carcinoma of breast, stomach, prostate, lung, colon, and pancreas, or Kaposi's sarcoma) and leukemia.
ADVANTAGE - (I) recognize an epitope present on (II) but not on its separate components, i.e. they are specific for activated receptors and thus for proliferative tissue.

L16 ANSWER 22 OF 31 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1999-153772 [13] WPIDS
DOC. NO. CPI: C1999-045499 [13]
TITLE: Modified phage display library depleted in phage that react with native cellular proteins - provides reduced noise and higher signal-to-noise ratio when screened against cells transfected to express a specific heterologous protein, used to identify potential therapeutic and diagnostic agents
DERWENT CLASS: B04; D16
INVENTOR: ALLEN J M; LAVERTY E
PATENT ASSIGNEE: (UNIU-C) UNIV GLASGOW
COUNTRY COUNT: 81

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 9906542	A1	19990211	(199913)*	EN	48[5]	
AU 9885503	A	19990222	(199927)	EN		
EP 1000142	A1	20000517	(200028)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9906542	A1	WO 1998-GB2269	19980729
AU 9885503	A	AU 1998-85503	19980729
EP 1000142	A1	EP 1998-936536	19980729
EP 1000142	A1	WO 1998-GB2269	19980729

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9885503	A	Based on	WO 9906542 A
EP 1000142	A1	Based on	WO 9906542 A

PRIORITY APPLN. INFO: GB 1997-16094 19970730
AN 1999-153772 [13] WPIDS
AB WO 1999006542 A1 UPAB: 20060115
A modified phage library for use with a selected strain of cells (A) that have been transformed to express a heterologous protein (I) in a screening procedure, to detect specific binding between individual phage and a recognition site on (I) is produced as follows. The initial phage library is fractionated by contact with (A) that do not express (I), to bind any phage that bind to cellular proteins other than (I). Bound and unbound phages are separated to produce the modified library, depleted in components that bind proteins other than (I). Also new are: (1) modified libraries produced this way; (2) method for selecting phage that bind specifically to ligand receptor site on a target protein by: (a) panning the protein with a phage library; (b) separating unbound phage, and (c) displacing bound phage by treatment with a ligand, appropriate for the receptor, and recovering them; and (3) peptides (II) identified by screening with the modified library.

USE - The library is used to identify phage that bind to cell-surface associated (I), specifically receptors. (II) are potentially useful as therapeutic and diagnostic agents, for diseases involving (I) or its ligands (including as carriers for delivering drugs, toxins or antibodies to cells), and their amino acid sequences can be used to design other agents for the same uses.

ADVANTAGE - The initial fractionation eliminates much of the noise caused by binding to other cell-surface proteins, and the use of transfected cells for screening (these express a far greater number of (I) than wild-type cells) improves the signal-to-noise ratio. The number of rounds of screening may thus be reduced. The method of (2) allows isolation of peptides that bind specifically to the ligand binding site (rather than those that bind fortuitously to a place remote from this site).

Member(0003)
ABEQ EP 1000142 A1 UPAB 20060115
A modified phage library for use with a selected strain of cells (A) that have been transformed to express a heterologous protein (I) in a screening procedure, to detect specific binding between individual phage and a recognition site on (I) is produced as follows. The initial phage

library is fractionated by contact with (A) that do not express (I), to bind any phage that bind to cellular proteins other than (I). Bound and unbound phages are separated to produce the modified library, depleted in components that bind proteins other than (I). Also new are: (1) modified libraries produced this way; (2) method for selecting phage that bind specifically to ligand receptor site on a target protein by: (a) panning the protein with a phage library; (b) separating unbound phage, and (c) displacing bound phage by treatment with a ligand, appropriate for the receptor, and recovering them; and (3) peptides (II) identified by screening with the modified library.

USE - The library is used to identify phage that bind to cell-surface associated (I), specifically receptors. (II) are potentially useful as therapeutic and diagnostic agents, for diseases involving (I) or its ligands (including as carriers for delivering drugs, toxins or antibodies to cells), and their amino acid sequences can be used to design other agents for the same uses.

ADVANTAGE - The initial fractionation eliminates much of the noise caused by binding to other cell-surface proteins, and the use of transfected cells for screening (these express a far greater number of (I) than wild-type cells) improves the signal-to-noise ratio. The number of rounds of screening may thus be reduced. The method of (2) allows isolation of peptides that bind specifically to the ligand binding site (rather than those that bind fortuitously to a place remote from this site).

=> d ibib abs l15 39,57 59

L15 ANSWER 39 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-608399 [65] WPIDS
DOC. NO. CPI: C2002-172001 [65]
DOC. NO. NON-CPI: N2002-481774 [65]
TITLE: Selecting candidate ligand that binds target molecule, to identify function, by contacting target sample with library of ligands to form a complex, isolating the complex, recovering ligands from complex and identifying recovered ligands
DERWENT CLASS: B04; C07; D16; P31; S03; T01
INVENTOR: SLANETZ A E
PATENT ASSIGNEE: (SLAN-I) SLANETZ A E
COUNTRY COUNT: 96

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
WO 2002058533	A2	20020801	(200265)*	EN	130[19]		<--
EP 1344060	A2	20030917	(200362)	EN			<--
AU 2002246512	A1	20020806	(200427)	EN			<--
JP 2004534519	W	20041118	(200476)	JA	205		<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002058533	A2	WO 2001-US43348	20011119
EP 1344060	A2	EP 2001-994081	20011119
EP 1344060	A2	WO 2001-US43348	20011119

JP 2004534519 W	WO 2001-US43348 20011119
AU 2002246512 A1	AU 2002-246512 20011119
JP 2004534519 W	JP 2002-558871 20011119

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1344060 A2	Based on	WO 2002058533 A
AU 2002246512 A1	Based on	WO 2002058533 A
JP 2004534519 W	Based on	WO 2002058533 A

PRIORITY APPLN. INFO: US 2001-329463P 20011015
US 2000-249832P 20001117

AN 2002-608399 [65] WPIDS

AB WO 2002058533 A2 UPAB: 20050903

NOVELTY - Selecting (M1) a candidate ligand (CL) that binds a target molecule (I), by contacting an in vitro sample comprising (I) with a library (L) of CLs under conditions allowing complex (CX) formation between (I) and one or more CLs, where (L) comprises at least 2 different chemical scaffolds or 11 different compounds, isolating the CX, recovering CL from the CX and identifying the CLs, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) reacting two ligands that bind a target molecule of interest;

(2) isolating a second protein which binds a first protein;

(3) an electronic database (ED1) comprising at least 10 records of target molecules correlated to records of ligands and their ability to bind or modulate the activity of the target molecules;

(4) an electronic database (ED2) comprising at least 10 records of target molecule domains correlated to records of ligands and their ability to bind the domains;

(5) an electronic database (ED3) comprising at least 1000 records of compounds correlated to records of a phenotype in one or more biological assays effected by the compounds, where the biological assay involves a cell or in vitro sample that does not contain an exogenous copy of a nucleic acid encoding a protein that binds the compound;

(6) a computer comprising ED3 and a user interface capable of displaying one or more phenotypes in one or more biological assays for a compound whose record is stored in the computer or capable of displaying one or more compounds that effects a phenotype whose record is stored in the computer;

(7) an electronic database (ED4) comprising at least 10 records of target molecules correlated to records of an expression profile or activity of the target molecules;

(8) a computer comprising ED4 and a user interface, capable of displaying one or more expression profiles or activities of a target molecule whose record is stored in the computer or capable of displaying one or more target molecules that have an expression profile or activity whose record is stored in the computer;

(9) determining whether a compound of interest is present in the sample;

(10) a computer readable memory having a program stored on it for determining whether a compound of interest is present in a sample, comprising a computer code that receives as input mass spectrometry data comprising the mass to charge ratio for one or more peaks in reference mass spectra for two or more compounds from a library of compounds, a computer code that receives as input mass spectrometry data comprising the mass to charge ratio for one or more peaks in a test mass spectra of a sample comprising one or more compounds from the library, and computer code that determines whether peaks of the

reference mass spectrum are included in the test mass spectrum, thus determining whether the compound that generated the reference mass spectrum is present in the sample;

(11) producing two or more vectors encoding proteins of interest; and

(12) purification of proteins.

USE - M1 is useful for determining the biological function of a target molecule. The electronic databases are useful for identifying a target molecule associated with a phenotype of interest, identifying a phenotype that is associated with a target molecule of interest, identifying a ligand that binds or modulates the activity of a target molecule of interest, where the ligand is used in drug discovery, development or lead optimization and in the development of an agricultural or environmental agent, determining the selectivity of a ligand of interest and selecting a therapy for a subject for the treatment stabilization or prevention of a disease or disorder (claimed). The methods are useful to define the function of genes and to simultaneously validate the drug target and generate a drug lead thus streamlining the drug discovery process.

ADVANTAGE - The method does not require any prior knowledge of target identity or function while the conventional methods are only for screening against known targets, and does not absolutely require the constraint of a predetermined subunit of a particular mass in the construction of its library. The methods allow the expression and purification of every protein in the proteome of an organism (e.g. human proteome) and the identification of high-affinity, drug-like scaffolds for each protein. The methods also allow a theoretically unlimited number of candidate compounds and candidate scaffolds to be screened. Because the methods are so rapid and can be performed on such a large scale, they are useful for assaying target molecules that have not been previously validated as drug targets or target molecules of unknown biological function to select ligands that bind and/or modulate the activity of the target molecules. In contrast, current methods of selecting ligands that bind a target molecule have been limited to target molecules that have been validated as drug targets. Thus, the above said methods greatly expand the number of target molecules that can be assayed. In contrast to many current assays which measure a specific activity of the target protein, the above said method can be readily applied to any target in the proteome without customization. The methods also use a very small amount of reagents (such as less than 300 microg of each target for 200000 compounds, and less than 35 ng of each compound for each target). The methods also allow a library of compounds to be screened without tagging or purifying individual members of the library of compounds to be screened without tagging or purifying individual members of the library before screening, thus greatly decreasing the amount of time necessary to screen the library. The length of time required to screen libraries can also be reduced by using the automated methods which allow multiple libraries and/or multiple targets to be analyzed in parallel.

L15 ANSWER 57 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2000-387775 [33] WPIDS
CROSS REFERENCE: 1999-190616; 2003-776567
DOC. NO. CPI: C2000-117779 [33]
TITLE: Selecting internalized ligands displayed on a genetic package by contacting them with a cell, where each package carries a gene encoding a detectable product expressed on internalization, useful for identifying ligands for gene therapy
DERWENT CLASS: B04; D16
INVENTOR: BAIRD A; KASSNER P; LAROCCA D
PATENT ASSIGNEE: (SELE-N) SELECTIVE GENETICS INC

COUNTRY COUNT: 88

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
WO 2000029555	A1	20000525	(200033)*	EN	105[18]		
AU 2000013299	A	20000605	(200042)	EN			
EP 1133553	A1	20010919	(200155)	EN			
US 6472146	B1	20021029	(200274)	EN			
							<--
US 6589730	B1	20030708	(200353)	EN			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000029555	A1	WO 1999-US25361	19991029
US 6472146	B1 Provisional	US 1997-57067P	19970829
US 6589730	B1 Provisional	US 1997-57067P	19970829
US 6472146	B1 Cont of	US 1998-141631	19980828
US 6589730	B1 CIP of	US 1998-141631	19980828
US 6589730	B1	US 1998-193445	19981117
US 6472146	B1	US 1998-195379	19981117
EP 1133553	A1	EP 1999-956763	19991029
EP 1133553	A1	WO 1999-US25361	19991029
AU 2000013299	A	AU 2000-13299	19991029

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000013299 A	Based on	WO 2000029555 A
EP 1133553 A1	Based on	WO 2000029555 A

PRIORITY APPLN. INFO: US 1999-258689 19990226
US 1998-193445 19981117
US 1998-195379 19981117
US 1997-57067P 19970829
US 1998-141631 19980828

AN 2000-387775 [33] WPIDS
CR 1999-190616; 2003-776567
AB WO 2000029555 A1 UPAB: 20060116

NOVELTY - A method of selecting internalizing ligands displayed on a genetic package, comprising contacting at least 1 of the ligands with a cell, where each package carries a gene encoding a detectable product expressed on internalization, is new. The method is referred to as Ligand Identification Via Expression or LIVE (RTM).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a medicine for gene therapy comprising an internalizing ligand identified by the method; and

(2) an anti-bacterial agent comprising an internalizing ligand identified by the method.

ACTIVITY - Antibacterial.

No biological data.

MECHANISM OF ACTION - Gene therapy.

USE - The method identifies ligands (e.g. peptides) that may be useful in gene therapy. The method is also useful for studying protein-protein interactions that lead to cell transduction and identifying cells which are transduced by the ligands.

L15 ANSWER 59 OF 61 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1999-190616 [16] WPIDS
CROSS REFERENCE: 2000-387775; 2003-776567
DOC. NO. CPI: C1999-056145 [16]
DOC. NO. NON-CPI: N1999-139402 [16]
TITLE: Selection method for internalizing ligands - using bacteriophage which express peptides and a detectable product and cells which comprise a receptor for internalization
DERWENT CLASS: B04; D16; S03
INVENTOR: BAIRD A; BURG M A; KASSNER P; LAROCCA D
PATENT ASSIGNEE: (SELE-N) SELECTIVE GENETICS INC
COUNTRY COUNT: 79

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
WO 9910485	A1	19990304	(199916)*	EN	44[5]		
AU 9890398	A	19990316	(199930)	EN			
NO 2000000992	A	20000327	(200029)	NO			
EP 1009819	A1	20000621	(200033)	EN			
JP 2001513995	W	20010911	(200167)	JA	54		
AU 740541	B	20011108	(200176)	EN			
MX 2000002075	A1	20010801	(200238)	ES			
US 6451527	B1	20020917	(200264)	EN			<--
US 20030148263	A1	20030807	(200358)	EN			<--
US 6723512	B2	20040420	(200427)	EN			<--
RU 2234530	C2	20040820	(200459)	RU			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9910485	A1	WO 1998-US17949	19980828
US 6451527	B1 Provisional	US 1997-57067P	19970829
US 20030148263	A1 Provisional	US 1997-57067P	19970829
US 6723512	B2 Provisional	US 1997-57067P	19970829
AU 9890398	A	AU 1998-90398	19980828
AU 740541	B	AU 1998-90398	19980828
EP 1009819	A1	EP 1998-942312	19980828
US 6451527	B1 CIP of	US 1998-141631	19980828
US 6723512	B2 CIP of	US 1998-141631	19980828
NO 2000000992	A	WO 1998-US17949	19980828
EP 1009819	A1	WO 1998-US17949	19980828
JP 2001513995	W	WO 1998-US17949	19980828
RU 2234530	C2	WO 1998-US17949	19980828
US 6451527	B1 CIP of	US 1998-193445	19981117
US 20030148263	A1 CIP of	US 1998-193445	19981117
US 6723512	B2 CIP of	US 1998-193445	19981117
US 6451527	B1 CIP of	US 1998-195379	19981117
US 20030148263	A1 CIP of	US 1998-195379	19981117
US 6723512	B2 CIP of	US 1998-195379	19981117
US 6451527	B1	US 1999-258689	19990226
US 20030148263	A1 CIP of	US 1999-258689	19990226
US 6723512	B2 CIP of	US 1999-258689	19990226
US 20030148263	A1 CIP of	WO 1999-US25361	19991029
US 6723512	B2 CIP of	WO 1999-US25361	19991029
JP 2001513995	W	JP 2000-507793	19980828

RU 2234530 C2	RU 2000-107788 19980828
MX 2000002075 A1	MX 2000-2075 20000228
NO 2000000992 A	NO 2000-992 20000228
US 20030148263 A1 CIP of	US 2001-866073 20010524
US 6723512 B2	US 2001-866073 20010524
US 20030148263 A1	US 2002-151204 20020517

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 740541 B	Previous Publ	AU 9890398 A
US 20030148263 A1	CIP of	US 6451527 B
US 6723512 B2	CIP of	US 6451527 B
US 20030148263 A1	CIP of	US 6472146 B
US 6723512 B2	CIP of	US 6472146 B
US 6723512 B2	CIP of	US 6589730 B
AU 9890398 A	Based on	WO 9910485 A
EP 1009819 A1	Based on	WO 9910485 A
JP 2001513995 W	Based on	WO 9910485 A
AU 740541 B	Based on	WO 9910485 A
RU 2234530 C2	Based on	WO 9910485 A

PRIORITY APPLN. INFO: US 1997-57067P 19970829
US 1998-141631 19980828
US 1998-193445 19981117
US 1998-195379 19981117
US 1999-258689 19990226
WO 1999-US25361 19991029
US 2001-866073 20010524
US 2002-151204 20020517

AN 1999-190616 [16] WPIDS
CR 2000-387775; 2003-776567
AB WO 1999010485 A1 UPAB: 20060115
NOVELTY - New selection methods for internalizing ligands use bacteriophage which express peptides and also a detectable product and cells which comprise a receptor for internalization. DETAILED DESCRIPTION - A method for identifying in a library of bacteriophages expressing heterologous peptides or proteins, a bacteriophage that binds to a cell surface receptor and internalizes comprising: (a) contacting a library of bacteriophages expressing peptides with a cell, where the bacteriophage carries a gene encoding a detectable product; and (b) detecting the product; thereby identifying a bacteriophage expressing a heterologous peptide that binds to a cell surface receptor and internalizes. INDEPENDENT CLAIMS are also included for: (1) a method of isolating cells that have internalized a bacteriophage present in a library of bacteriophages expressing heterologous peptides or proteins comprising: (a) contacting a library of bacteriophages expressing peptides with a cell , where the bacteriophage carries a gene encoding a detectable product; (b) detecting the product; and (c) isolating cells that express the product; (2) a method of selecting a bacteriophage expressing a heterologous peptide that binds to a cell surface receptor and internalizes, comprising: (a) as in (1a) and (1b); and (c) recovering the bacteriophage gene encoding the peptide from cells expressing the product to select a bacteriophage expressing a heterologous peptide that binds to a cell surface receptor and internalizes; (3) a method of selecting a bacteriophage expressing a heterologous peptide that binds to a cell surface receptor and internalizes, comprising: (a) as in (1a); (b) incubating the cells under selective conditions; and (c) as in (2c); (4) a method of identifying a subset of bacteriophage expressing a heterologous peptide that binds to a

cell surface receptor and internalizes, comprising: (a) contacting a library of bacteriophages expressing peptides with cells in an array, where the bacteriophage carries at least one gene encoding a detectable product; and (b) detecting the product(s) in the array; to identify a subset of bacteriophage expressing a heterologous peptide that binds to a cell surface receptor and internalizes; (5) an internalizing ligand selected from sequences (I)-(III), and (6) an internalising ligand comprising sequence (I), (II), or (III): FVPDPYRKSR (I) CGGGPVAQRC (II) CLAHPHGQRC (III)

USE - The methods can be used to select cDNAs, Fabs, SVF, or random peptides, for the discovery of new ligands. They can also be used to detect mutated and gene-shuffled versions of known ligands for targeting ability. The ligands identified by the methods may be used as targeting agents for delivering therapeutic agents to cells or tissues. e.g. a therapeutic gene can be incorporated into the phage genome and delivered to cells via phage bearing the gene delivery ligand on its protein coat. A therapeutic nucleic acid may be used to effect genetic therapy by serving as a replacement for a defective gene, by encoding a therapeutic product, such as TNF, or by encoding a cytotoxic molecule, especially an enzyme, such as saporin. The bacteriophages provided are useful in the treatment and prevention of various diseases, syndromes and hyperproliferative disorders, such as restenosis, other smooth muscle cell diseases, tumors, such as melanomas, ovarian cancers, neuroblastomas, pteprygg ii, or secondary lens clouding, angiofibroma, arteriovenous malformations, arthritis, atherosclerosic plaques, corneal graft neovascularisation, delayed wound healing, diabetic retinopathy, granulations due to burns, hemangiomas, hemophilic joints, hypertrophic scars, neovascular glaucoma, nonunion fractures, Osler-Weber syndrome, psoriasis, pyogenic granuloma, retrolental fibroplasia, scleroderma, solid tumors, trachoma or vascular adhesions.

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(FILE 'HOME' ENTERED AT 20:10:55 ON 26 SEP 2007)

FILE 'MEDLINE, BIOSIS, CAPLUS, SCISEARCH, EMBASE, WPIDS' ENTERED AT 20:11:22 ON 26 SEP 2007

E LAROCCA DAVI?/AU

L1 66 E4-E6
L2 50 DUP REM L1 (16 DUPLICATES REMOVED)
L3 0 PHAGE AND CELL AND (BIND OR BIND? OR BOUND) AND (WASH OR WASH?)
L4 22 PHAGE AND CELL AND L2
L5 0 BIOPANNING AND L2

FILE 'STNGUIDE' ENTERED AT 20:18:18 ON 26 SEP 2007

FILE 'MEDLINE, BIOSIS, SCISEARCH, EMBASE' ENTERED AT 21:11:26 ON 26 SEP 2007

E SPEAR MATTE?/AU

L6 30 E2-E5
L7 0 ANNEXIN AND L6
L8 1 APOPTO? AND L6

FILE 'STNGUIDE' ENTERED AT 21:13:29 ON 26 SEP 2007

FILE 'MEDLINE, BIOSIS, CAPLUS, SCISEARCH, EMBASE, WPIDS' ENTERED AT 21:15:52 ON 26 SEP 2007

L9 24892 ANNEXIN (W) V
L10 2664 FLUORES? (S) ANNEXIN (W) V
L11 2210 FLUORES? (S) ANNEXIN (W) V AND APOPTO?
L12 103 LIBRARY AND CELL AND (RECOVER OR RECOVER?) (S) LIGAND

L13	92	DUP REM L12 (11 DUPLICATES REMOVED)
L14	1	L13 AND L11
L15	61	PY>2002 AND L13
L16	31	L13 NOT L15

WEST Search History

Hide Items | Restore | Clear | Cancel

DATE: Wednesday, September 26, 2007

Hide?	Set Name	Query	Hit Count
		DB=PGPB,USPT; PLUR=YES; OP=OR	
☐	L5	20050176005.pn.	1
☐	L4	apoptosis and l1	1
☐	L3	annexin and l1	0
☐	L2	annexin adj V and l1	0
☐	L1	5,824,520.pn. or 6,287,874.pn. or 20010055585.pn.	3

END OF SEARCH HISTORY